

HOTEL_Analy

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I have made a Django framework where the basic app structure is:

hotel_analy : (Apps) (other folders /files):

- menuhours
- templates
- storestatus
- storestatus.csv
- Timezone
- timezone.csv
- menuhours.csv

I chose this structure because it will be handy in making our website development in future , it will help in better structure of our site also

Models of our app :

Menuhours : (representing structure according to given data)

- store_id
- store_day
- start_time_local
- end_time_local

Storestatus :

- store_id
- status
- timestamp_utc

Timezone:

- store_id
- time_zone

Process of updating database :

(note the file should be in .xlsx)

Each app has “/update” extension which can be run periodically to update database

(hence to access the update extension the url will be with extension “/Appname/update “

Change the excel location in urls.py with update function

Example in Timezone

```
def update(request):  
  
    ###change accordingly the file name  
    file_name = 'TimeZone.xlsx'  
    wb = openpyxl.load_workbook(file_name)  
    sheet = wb.active  
  
    ## as the data is already updated till 13560 rows change it to 0 if  
    start = 13561  
    for row in sheet.iter_rows(min_row=start, values_only=True):  
        timezone = TimeZone()  
  
        timezone.store_id = row[0]  
        timezone.time_zone = row[1]  
  
        # set other fields as needed  
        timezone.save()  
  
    return HttpResponse('TimeZOne database Updated successfully')
```

The file name can be changed according and should be in hotel_analy file

Start represent from which row the data is to be read

It could be made global variable (with +1 to row to eliminate row name)

Once the database is updated

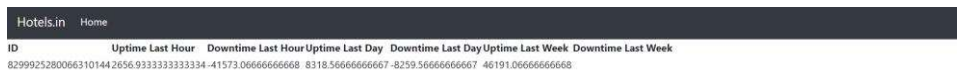
Getting random id's

Got the random id's from “/data” or by clicking the All_data extension on navigation bar

Then go to home and search the id



Output :



ID	Uptime Last Hour	Downtime Last Hour	Uptime Last Day	Downtime Last Day	Uptime Last Week	Downtime Last Week
8299925280066310144	2856.9333333333334	-41573.06666666668	8318.56666666667	-8259.56666666667	46191.06666666668	

Algorithm for getting uptime and downtime :

I defined the functions : totaltime and uptime_downtime functions

Where :

Dayinttostring – matches the input day string to output integer from 0 to 6

Totaltime – gives output total time accountable for calculation - I.e. uptime + downtime

Uptime_downtime function gives , uptime and downtime output

(in totaltime and uptime_downtime , type represents time to be considered 1 hour , 24 hours or 7 days)

Algorithm used for uptime_downtime :

Each timestamp represent patch of (60 min) uptime with range from t-30 to t+30 and if out of hotel working range it shall not be taken

First found the from_time and current_time , which represent the range of time to be considered

Then successivele decreased the current_time to t-30 patch while adding to total uptime and hence when current_time < from_time output is generated

Then downtime is calculated as = totaltime – uptime

And hence generated on webpage

